

PATENT CLAIMS

1. Moulding sand supply apparatus (1) comprising a sand reservoir (2) for delivering sand (3) to a mainly horizontal belt conveyor (4), said belt conveyor (4)
5 being controlled to deliver an appropriate amount of sand for filling a flask (5) positioned to receive sand falling from the belt conveyor, c h a r a c t e r i s e d by further comprising means for controlling the belt conveyor speed according to a speed profile providing varying trajectories for the delivered sand resulting in a controlled distribution in the transport direction of the belt conveyor (4) of the sand
10 (3) in the flask (5).
2. Apparatus in accordance with claim 1, c h a r a c t e r i s e d by further comprising guide plates (7) to influence the distribution of the sand (3) in a direction perpendicular to the transport direction of the belt conveyor (4).
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3. Apparatus in accordance with claim 1 or 2, c h a r a c t e r i s e d by further comprising guiding plates (7) to influence the distribution of the sand (3) in the transport direction of the belt conveyor (4).
- 20 4. Apparatus in accordance with claim 1 or 2, c h a r a c t e r i s e d by further comprising a funnel (8) positioned to guide the falling sand between the belt conveyor (4) and the flask (5).
- 25 5. Apparatus in accordance with any of the preceding claims, c h a r a c t e r i s e d by further comprising a weighing unit (9) detecting the weight of the sand delivered to the flask (5).
- 30 6. Apparatus in accordance with claim 4, c h a r a c t e r i s e d by said weighing unit (9) being provided in the form of a sensor activated by the deflection of a structure supporting the flask (10).
7. Method for supplying moulding sand (3) from a sand reservoir (2) via a belt conveyor (4) to a flask (5) comprising the steps of
- controlling the belt conveyor (4) to supply an appropriate amount of sand (3) for
35 filling a flask (5), c h a r a c t e r i s e d by comprising the further steps of:

- controlling the belt conveyor speed according to a varying speed profile providing varying trajectories for the sand leaving the end of the belt conveyor (4), said varying trajectories resulting in a controlled distribution in the transport direction of the belt conveyor (4) of the sand (3) in the flask (5).

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8. Method in accordance with claim 6, characterised by comprising the further step of providing guide plates (7) to influence the distribution of the sand in a direction perpendicular to the transport direction of the belt conveyor (4).

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9. Method in accordance with claim 6 or 7, characterised by comprising the further step of providing a funnel (8) to guide the falling (3) between the belt conveyor (4) and the flask (5).

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10. Method in accordance with any of the claims 6-8, characterised by comprising the further step of using the weight of the sand (3) delivered to the flask (5) as an input to the controller controlling the belt conveyor speed.